

69. First stage in the integrated Decisional System



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The [integrated Decisional System](#), alike any other previous (specific, standardized, particular) [Decisional System](#), or even alike any other intelligence, system, or program, is formed by the traditional three stages that I am developing for all intelligence, system, or program, the three stages of: application (database or matrix as first stage), replication (the replication of all those human skills necessary to carry out its purpose), auto-replication (auto-improvement or auto-enhancement by itself).

In this case, the integrated Decisional System, the first stage is the integrated database of decisions, where are filed all global decisions in addition to all particular decision sent by the [particular programs](#), and is the place where to carry out the first assessment: quick rational check for quick decisions, or first rational adjustment. The second stage is where the integrated Decisional System is going to project all decision: starting with the single project, going on with the global project (the plan), the actual project (the actual plan), and the prediction and evolution, virtual or actual, plan; and across all these projects the rest of six rational adjustments, plus the seven rational comparative adjustments. And finally, the third stage is where all those decisions on the mathematical projects, having passed all the assessments (quick rational check for quick decisions, seven rational adjustments and seven rational comparative adjustments), are transformed into a range of instructions.

In this post what I will develop, among all these three stages, is the first stage of database of decisions for the integrated Decisional System, identifying what decisions stores, how is going to manage the database, including the elaboration of lists of decisions, and logical sets of decisions in order to work easier with diagrams of Venn.

But firstly, a very brief summary about what the integrated Decisional System is, and what place it occupies within the chronology for the construction of the Global Artificial Intelligence.

As I have explained in previous post, the construction of the [integrated Global Artificial Intelligence](#) is a long process starting with the first [Specific Artificial Intelligences for Artificial Research, by Deduction](#) and by [Application](#), followed by a [second phase based on the collaboration between them](#), as [experiments](#) about how to build for first time in the third phase the [standardized Global Artificial Intelligence](#), as a synthesis of all [specific matrixes](#) coming from all the Specific Artificial Intelligences for Artificial Research by Deduction, followed in the next fourth phase by the [Unified Application](#) as synthesis of all databases of categories from all Specific Artificial Intelligences for Artificial Research by Application.

As fifth phase, the most important one in order to settle our first human interaction - Artificial Intelligence, is going to be as a result to start experiments, at particular level, about how to construct the first replicas of our human brain, in order to get ready for the first steps in the transcending process, whose last aim is the complete synthesis between human brain and Global Artificial Intelligence up till the sixth phase, and from the seventh phase on the complete synthesis between human mind and the pure reason itself. In further developments, such as the eighth phase, one possible development of this direct interaction between human mind and pure reason itself would be our multiple virtual lives in all those multiple parallel universes as a result to the creation of that matrix formed by all possible combination of variations based on the pure equation, in which [the matrix](#) of data from the sixth phase has been reduced to a matrix of equations.

The sixth phase is no other thing than the synthesis of the global matrix from the standardized Global Artificial Intelligence but now as factual hemisphere in the matrix in the integrated Global Artificial Intelligence, as long as the unified database of categories in the Unified Application is now the conceptual hemisphere of the matrix in the integrated Global Artificial Intelligence.

The matrix as first stage in the integrated Global Artificial Intelligence provides all the information necessary as to make deductions in the second stage of the integrated Decisional System, so the Artificial Research by Deduction in the Global Artificial Intelligence as a global deductive program, assisted by at least one specific deductive program per sub-factoring level, are going to make global/specific deductions (at this level practically the specific level has become a global level too) to be processed in the third stage across four steps: 1) [integrated Modelling System](#), 2) [integrated Decisional System](#), 3) integrated Application System, 4) integrated Learning System.

Firstly, the deduction made by any global/specific program, is filed by the corresponding program author of this deduction, in the corresponding file in the [database of rational hypotheses](#) as the first stage in the integrated Modelling System, where are stored also all those particular [rational hypotheses](#) sent by all particular programs. All decisions are going to be checked during this process by the seven rational checks, the first one in the first stage, the rest of them in the second stage, where the integrated Modelling System makes the [mathematical models](#) corresponding to every rational hypothesis, at the same time that is carrying out the seven rational comparative checks. Once all possible contradiction in the mathematical model has been fixed, the third stage makes [decisions upon mathematical models](#), using for that purpose, for instance, [Impact of the Defect](#) or [Effective Distribution](#), Probability and Deduction (all those rational hypothesis and decisions), trigonometrical correlations, artificial learning, solving math problems. In fact even those decisions not made directly by Impact of the Defect or Effective Distribution, all the other ones: Probability and Deduction, trigonometry, artificial learning, solving maths problems; their resulting decisions must be assessed using the Impact of the Defect or Effective Distribution in order to label them with some priority level, alike all those ones made directly using Impact of the Defect and Effective Distribution.

Once every decision global/specific or particular, has been labelled with a priority level, the integrated Modelling System files every decision in the right file in the integrated database of decisions as first stage in the integrated Decisional System in accordance with: sub-factoring level (geographical are), encyclopaedic sub-section within that sub-factoring level, and according to priority level within that file corresponding to its sub-section within that sub-factoring level (the stage I will develop in this post). After the first stage, in the second stage of the integrated Decisional System, all decisions are projected, and in the third stage, the projected decisions are transformed into a range of instructions, if passing all the assessments. The instructions are sent to the database of instructions as first stage in the integrated Application System, which will match every instruction with the correct application or robotic device, to be implemented, and after implementation it will send reports about how it was to the Learning System, to analyse further decisions to improve the process.

Throughout all this process, full of different phases, stages, periods , moments, instants, what I will develop in this post is: the second step, in the third stage, in the sixth phase; the database of decisions in the integrated Decisional System.

And the decisions that are going to be stored in the database, are classifiable in a very similar way than that other classification used in the fifth phase, but now adapted as a possible classification for the integrated database of (global/specific and particular) decisions, having as most important decision to process, what I will call global orders: that type of global/specific decision whose priority level and spatial limits goes beyond a high extreme decision, and implies consequences for all the global model, having as main purpose to keep global harmony.

- First type, high extreme priority decisions, subdivided in: global/specific high extreme decisions, and particular high extreme decisions; and each sub-group sub-sub-grouped in all those different levels of possible high extreme decisions. The main difference between global/specific high extreme decisions and particular extreme decisions, is the fact that by the time a particular high extreme decision has been communicated to the integrated Decisional System, that high extreme particular decision is being implemented directly by the Application System, once that particular high extreme decision has passed a particular quick rational check. While high extreme global decision is a decision that, as soon as it has been stored, is not put into practice after passing the global quick rational check. That means that, if there are two decisions with the same high extreme priority level, but one is particular and the other one is global, the global quick rational check should be first for the particular high extreme priority level, because it is being already implemented, but although the global high extreme decision is not yet on the plan, the global quick rational check for the particular high extreme decision should be done in terms that this must be compared, no only respect to the current decisions on the plan, but additionally with that other global high decision that is going to be checked later, in order that by the time that the global high priority is later on the quick rational check, any possible contradiction with that particular one, would have been adjusted previously, so the quick rational check for the global high priority decision must be comparing this one with the rest on the plan. Once that particular high extreme decision has been assessed (as it has been explained) by the global quick rational check, having found any contradiction with this decision and any other one already on the plan, depending on priority and/or origin (global/specific or particular) must be made the adjustments: always the one to be adjusted in case of contradiction is that one with the lower priority, but in case that two different high extreme decisions have a contradiction and both have the same high extreme priority, then the one to be adjusted is the particular one, adjusting the particular one to the global/specific decision. Any necessary adjustment on any particular decision on the plan, should be communicated to that particular program responsible for this decision to include as soon as possible all the adjustments on the mathematical expression of this decision in its particular database of decisions, in order to make the corresponding projects, and particular adjustments if necessary, looking forward to the immediate transformation of this new adjustments into

a new range of instructions to substitute the current ones on the particular Application System.

- Second type, extreme priority decisions, whose priority level is lower than high extreme priority decisions, having two main sub-groups: particular extreme priority decisions and global/specific extreme priority decisions; and each sub-group is sub-grouped into as many sub-groups as sub-categories of different extreme priority decisions could be distinguished. The main difference between particular high extreme decisions and particular extreme decisions, is the fact that particular extreme decisions are not being implemented yet, although having passed the particular quick rational check, by the time they are sent to the integrated database of decisions, waiting for the global authorisation for their implementation. Due to this very important difference, because these particular extreme decisions are not yet implemented yet, waiting for the global authorization, issued by the integrated Decisional System, in case that there are simultaneously two extreme decisions, one global/specific and the other particular, because both of them are under the same circumstances, waiting for global authorization to be implemented, in this case now always the first one to pass the global quick rational check is always the global/specific extreme decision, and secondly the particular extreme decision. And in case that there is any contradiction between two decisions, regardless of their origin, global/specific or particular, it is always the one with lower priority that one to be adjusted in order to avoid the contradiction. But if two decisions have the same priority level, one is specific/global, the other particular, the particular decision is the one to be adjusted to the global/specific.

- Third type, normal decisions, including as a whole particular normal decisions and global/specific normal decisions, as all those decisions, global/specific of particular, neither extreme, routine, nor automatic decisions, to pass the seven global rational adjustments (although particular normal decisions have already passed the particular seven rational adjustments, the seven global adjustments will be necessary to keep the harmony in the plan for the global model). In fact, the seven rational adjustments are going to track all the decisions, regardless of their priority, but only are going to make adjustments in those with lower priority. However, there can be situations in which an adjustment tracking all the decisions looking for contradictions, could find contradictions in other no normal decisions, but in any case, the seven adjustments always will make the adjustments in those ones with lower priority, otherwise, if there is no mathematical solution by any method (Probability and Deduction, trigonometry, artificial learning, solving mathematical problems), the contradiction is considered as full and that decision with the lower priority is off the plan and sent back to the source to be redesigned.

- Fourth type, routine decisions, defined as those with high relative frequency on the historical records, not having in the past any contradiction on the plan or having some frequency of contradiction the frequency is equal to or less than a critical reason. Including in this type as a whole particular routine decisions and global routine decisions, the main difference between particular routine decisions and global routine decisions is the fact that when particular routine decisions arrive in the integrated database of decisions in the integrated Decisional System, these decisions should already being implemented, not needing any other check more, in order to avoid a funnel effect on the integrated Decisional System. Particular routine decisions should be communicated only to the integrated Decisional System, but do not necessarily need to pass the global quick rational check. The global rational check on routine decisions should be only for global routine decisions.

- Fifth type, automatic decisions, including as a whole particular automatic decisions and global automatic decisions, defining as automatic decision any one that having a direct relation with some combination of measurements in some combination of factors, is possible to set up this decisions by artificial learning as automatic decisions, in order that at any time that on the matrix or on the model or on the plan, this combination of measurements/factors is on, automatically the decision is on the plan. All these decisions, particular and global automatic decisions, should not be assessed as they have a high historical record of reliability; they must be projected on the plan directly, in order to avoid the funnel effect on the integrated Decisional System.

- Sixth type, external decisions, all particular decisions (of any priority or frequency) to be implemented by either robotic devices /applications working for the Global Artificial Intelligence (so these decisions must be sent by the integrated Decisional System to the integrated Application System after passing the corresponding global assessments, quick or normal depending on what kind of decision it is) or other third particular program which in that case after passing the corresponding global assessments, if passing, these decisions are sent to that third particular Application System to pass its particular assessment (quick or normal depending on what kind of decision it is), and if passing, to be implemented by the integrated Decisional System of this third particular program.

- Seventh type, global orders, every new global order on the plan is such a kind of global decision of such a kind of priority, whose main purpose is to keep the global harmony across the global model, and as soon that every new global order is issued by the

integrated Decisional System must be implemented. The most important global orders are all those whose main purpose is to keep the stability across the global model. There are at least two types of global orders, depending on which is responsible for their implementation. The first one is that global order to be implemented by robotic devices or applications working directly for the integrated Global Artificial Intelligence, and managed by the integrated Application System, so that as soon as the instructions of a global order arrive in the integrated Application System is applied as quick as possible by the integrated Application System. The second one, that global order to be implemented by particular programs, distinguishing between a global order directly to only one particular program, and that massive global order to be implemented by more than one particular program, having as limit, the total number of particular programs, so there can be some global order whose implementation will demand the collaboration of all particular program working for the integrated Global Artificial Intelligence. A global order on the plan is a mathematical expression of that decision, able to set or reset the global harmony using, for that purpose, all resources or information available.

A global order should only need a very quick global rational check, especially if there are two or more global orders at the same time, because in that case, that global order with lower priority should be adjusted to that global order with higher priority. In any case, the regular seven adjustments, at any time that any global order, or even high extreme or extreme decision in the database, should make the corresponding rational adjustments in any other decision with lower priority, in order to avoid contradictions, securing the completion of those with higher priority.

In order to comply with all types of decisions, in accordance with their respective method of assessment, quick rational check or adjustment, if necessary, the method in the management of all these decisions in the integrated database in the sixth phase, is as follow:

- Firstly, every decision is filed by its author (particular program or integrated Modelling System) in the corresponding file of this decision in the integrated database of decisions, which is, according to its priority, filing this decision in the corresponding file of its corresponding sub-section in its corresponding sub-factoring level.

- In order to make the corresponding assessment according to priority and origin, if necessary, in the integrated database of decisions as first stage in the integrated Decisional System, all decisions, according to priority level and origin, the decisions are

listed on a list, starting with global orders, followed by global or particular: high priority decisions, extreme priority decision; and ordering the rest of particular or global: normal, routine, automatic, external decisions; in accordance with their respective priority. There can be particular or global routine decisions with high level of priority, for instance, in case of an earthquake, or particular or global automatic decisions with high extreme priority level, such as a fire alarm. In these cases, those routine or automatic decisions having great priority, must be ordered in their corresponding positions according to their priority level within the rest of high extreme priority decisions, even though as routine or mechanic decisions they have passed other different method of assessment, in routine decisions if possible only a global or particular quick rational check, depending on its origin, in automatic decisions not having any assessment at all).

- Another list would be necessary, listing all possible global and particular decisions in accordance with their relative frequency, so at the top of the list are the most frequent decisions, regardless of their priority or origin, and at the bottom of this list are those decisions without any past relative frequency. So as to order all the decisions in accordance with their relative frequency in the past, the integrated Decisional System should have checked in its historical records how many times every decision has been on the plan before, in order to order all decisions by order of frequency. This order what is going to make easier is to recognise any possible routine decision, or new routine decision, for instance, if having stored in the database the same decision in the past, but not so frequent as to be considered a routine decision, as many times this decision again on the plan, its frequency on the records is bigger and bigger up to the point in which a normal decision, having an empirical probability over time equal to or greater than a critical reason, even being in the past normal, as long its frequency grows, can be reconsidered as a routine decision. As many decisions are reconsidered as routine decisions, more and more fluid is the integrated Decisional System, avoiding any funnel effect. However, even if a decision is not a routine decision, all decision, not only routine decision, having in the past some frequency, so in the past was on the plan, having as model the single project that was on the plan in the past, this single model is able to be reuse in the current circumstances, saving time in the second stage of the integrated Decisional System, due to the single project of any project in the past, if stored on its records, can be reuse as many times as this decision is again on the plan, but making as many adjustments as necessary in case of new contradictions-

- In any case, along with the list of relative frequency per decision, another similar is possible to be made using as criteria the frequency of contradictions that a decision, having some relative frequency, had in the past, and storing in the historical records not only the original decision but all possible adjustment that this decision could have in the

past, at any time that a decision with some relative frequency is on the plan again, having those adjustments stored on its historical records, is possible from the outset, the first assessment, to adjust this decision according to the contradictions observed, in case that this observed contradiction would be again on the plan during the time that this decision is again on the plan.

- In addition to the lists of: priority and origin, relative frequency, frequency of contradictions; another tool really important in the integrated database of decisions in the integrated Decisional System is the organization of logical sets of decisions, grouping the decisions in accordance with: discrete categories of priority and origin, discrete categories of frequency, discrete categories of frequency of contradictions, one category for each sub-factoring level, one category for each sub-section in every sub-factoring level, and another category for each sub-level including all decision belonging to the same sub-section across all different sub-factoring levels. So every decision must be stored simultaneously in its corresponding set according to priority and origin, its corresponding set according to relative frequency, its corresponding set according to frequency of contradictions, if any, its corresponding set according to sub-factoring level, its corresponding set according to its sub-section in its sub-factoring level, its corresponding set according to its sub-section in genera, where all decisions belonging to the same sub-section across different sub-factoring levels are represented.

This last tool, the logical organisation of decisions in logical sets, will allow us to work with large amounts of decisions in order to make faster and easier all the assessments required in the first stage in the integrated Decisional System, working with them using diagrams of Venn.

In general the order to follow for the assessments is in accordance with priority and origin, as it was explained in every one of the seven type of decisions, having in mind the importance of frequency for routine and automatic decisions, and having in mind how important the frequency the contradictions in the past is in order to make from the first assessment faster and easier adjustments at any time that a contradiction is found.

If at any time that a contradiction with a higher priority is in the database of decisions, the first rational adjustment identify what other decision with lower priority is necessary to adjust, identifies as well if this contradiction was observed in the past, and on the historical records there are some models of adjustments made on this contradiction in

the past, directly, instead of the calculation of a new mathematical solution for this contradiction, can reuse that solution used in the past if suitable.

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